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ABSTRACT

Descriptive survey research methodology was used to explore and describe factors--demographic, influential, or informational--that influenced student enrollment decisions in entry-level Welding Technology Program (WTP) courses. The target population included 38 students enrolled in the first semester courses offered by the WTP at Dona Ana Community College (DABCC) during fall 1995 and spring 1996 semesters. The questionnaire used checklist, anchored five-point Likert type, and open-ended questions. It inventoried the areas of influence and information that may have influenced student decisions to enroll in the WTP at DABCC, attitudes of students toward DABCC, and student demographic information. Respondents were mostly male (only two female); less than one quarter considered themselves as belonging to a cultural or ethnic minority; three quarters were single; and their average age was 26. Friends of respondents were the largest single source of information leading to awareness knowledge. The factor of student interest in learning about welding was very influential to enrollment decisions, whereas family pressure and friend(s) also enrolled in the WTP were not influential factors. Respondents had a positive attitude toward DABCC as an institution. (Contains 18 references.) (YLB)

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SOURCES OF INFLUENCE ON STUDENTS' ENROLLMENT DECISION IN POST-SECONDARY VOCATIONAL-TECHNICAL EDUCATION

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Abstract

Descriptive survey research methodology was utilized to explore and describe factors, either demographic, influential, or informational, which influenced student enrollment decisions in entry level welding technology program courses (WTP) at the Doña Ana Community College (DABCC). Data indicated friends of respondents were the largest single source of information leading to awareness knowledge, the factor of student interest in learning about welding was very influential to enrollment decisions whereas family pressure and friend(s) also enrolled in the WTP were not influential factors. Data also revealed respondents had a positive attitude toward the DABCC as an institution.

Introduction

Today's students will become tomorrow's work force. Surveying their occupational goals, as well as personal characteristics--economic, social, and educational, are vital (Henderson, 1970). Understanding student characteristics, the sources of influence and information on student decisions to enroll in, and student perceptions towards, post-secondary vocational-technical education, may be the essential keystone to providing increased post-secondary educational opportunities. In a time when it has been identified that three-fourths of high school students in the United States enter the workforce without baccalaureate degrees, and many do not possess the academic and entry-level occupational skills necessary to succeed in the changing workplace, there is a need to increase opportunities for all students to further their education (Public Law 103-239 (108 Stat. 568), 1994). Developing student profiles at

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the post-secondary level, is one way to better identify factors that contribute to their choices toward accessing or denying vocational-technical education.

Boyer (1987), and Clyde, Townes, and Hill (1984) identified parents, friends, high school counselors, and high school teachers as sources of influence on college and program selection for high school seniors. Findings by Rossetti (1989) identified the student's mother or female guardian and friends as the most important influences on student curriculum choice. Michaud's (1991) research identified that factors such as location, available programs, and cost, affect student choices concerning post-secondary education.

The Doña Ana Branch Community College (DABCC) is located on the main campus of New Mexico State University (NMSU) in Las Cruces, New Mexico. During the time which this research was conducted, the DABCC had an enrollment of 3,788 students for the Fall 1995, and 3,883 students for the Spring 1996, semesters (NMSU registrars office). The DABCC offers twenty-four different career-oriented programs as well as seven alternate areas of study related to community and adult basic education, developmental studies, and small business development. The Welding Technology Program (WTP) is one of the career oriented programs available at the DABCC. Students may obtain a two-year associate of applied science degree and/or a one-year certificate of completion. The WTP is structured to accommodate both full and part-time students through a "day structured" and "evening or night structured" curriculum offerings.

Purpose and Objectives

The purpose of this study was to answer the problem statement, "What sources of influence, sources of information, and student characteristics are important concerning student decisions to enroll in first semester WTP courses of instruction at the DABCC during the 1995-1996 academic year?" The following objectives assisted in guiding the research effort.

1. Describe the demographic characteristics of students enrolled in the first semester WTP courses at the DABCC.
2. Determine sources of information, and the most prevalent source of information, leading to student awareness of the WTP at the DABCC.
3. Determine influential factors, and the single strongest influence, on student decisions to enroll in first semester WTP courses at the DABCC.
4. Describe student attitudes toward the DABCC.

Procedures

The study utilized descriptive survey research (Ary, Jacobs, & Razavieh, 1990) to achieve the ends sought of exploring and describing the reasons students enroll in first semester WTP courses at the DABCC.

The target population for this study were students enrolled in the first semester courses offered by the WTP at the DABCC during the Fall 1995, and the Spring 1996, semesters. The survey accessed the entire population of interest as a census of both tangibles and intangibles. The DABCC official class list for each of the first semester WTP courses was the frame for this study. The actual population was dependent on class enrollment during the Fall 1995, and Spring 1996, semesters. The surveyed population consisted of thirty eight students (N=38) after verifying class lists and student attendance.

A questionnaire was designed and developed by the researcher to gather the desired information fulfilling the objectives of the study. The instrument utilized checklist, anchored five-point Likert type, and open ended questions. The questionnaire inventoried the areas of influence and information which may have influenced student decisions to enroll in the WTP at the DABCC, attitudes of students towards the DABCC, and student demographic information.

Content and face validity were established using a panel of experts (n=6) review of the questionnaire. The review provided by the panel assisted in the effort to provide an instrument which accurately represented the area and domain of interest in this study. Panel comments and input were addressed and incorporated into the final draft of the questionnaire prior to its administration.

A pilot test using test-retest procedures correlating the paired scores to determine the reliability or consistency of the questionnaire was used (Ary, Jacobs, & Razavieh, 1990). Percent agreement (coefficient of stability) between responses of the test and retest were calculated for questions in the survey instrument addressing sources of influence and information. The range of percent agreement for non-summated items was 69-100%.

Measurement of internal consistency, insuring that all items are contributing to the same domain, was established using Cronbach's coefficient alpha for the summated scales (Ary, et al., 1990). After the completed questionnaires were coded and entered into a personal computer for data analysis, a Cronbach alpha reliability coefficient for questions addressing attitudes of respondents towards the DABCC was computed to be .79. Recommendations by Nunnally (1967) and Ary et al., (1990), indicated the .79 reliability coefficient obtained in the test-retest for this research to be acceptable.

There were two sets of two administrations of the questionnaire. The first set occurred in the Fall 1995, semester, and the second set occurred in the Spring 1996, semester. All administrations were performed in the WTP instructional classroom by the researcher. Consent to participate in the research project was verbally requested by the researcher prior to administration of the questionnaire. Participation was entirely voluntary. The researcher remained in the classroom to respond to any questions that would further clarify the content of the questionnaire. All students enrolled in the surveyed courses in the Fall 1995, and

Spring 1996, semesters received and responded to a questionnaire. A total of 38 questionnaires were completed.

Data Analysis

Response data were coded, entered into a personal computer and analyzed using SPSS for Windows (Statistical Package for the Social Science, 6.1). The analysis was conducted to summarize the data collected from the target population. Student demographic characteristics, sources of information and the most prevalent source of information, influential factors and the single strongest influence, and student attitudes toward the DABCC, were summarized using descriptive statistics.

Results

Demographic Characteristics of the Students Enrolled in the WTP at the DABCC

Concerning objective 1, describing the demographic characteristics of the students, a total of 94.7% (n=36) of the students were male and the remaining 5.3% (n=2) of the students were female. There were 78.9% (n=30) of the students who did not consider themselves as belonging to a cultural or ethnic minority while 21.1% (n=8) of the students considered themselves as belonging to a cultural or ethnic minority. When responding to marital status, 73.3% (n=28) of the students indicated they were single and 26.3% (n=10) indicated they were married. 36.8% (n=14) of the students indicated their employment status to be working full time, 28.9% (n=11) were working part-time, and, 34.2% (n=13) were not working. The minimum age recorded was 17 years old and the maximum age was 60, yielding a range of 43 years between the oldest and youngest students. The average age of the students was 26.11 years with one unit of standard deviation being 9.92.

The highest level of education completed were grouped according to high school graduates (or high school diploma equivalency), one-year certificate at a technical school or community college, two-year associate's degree, four-year bachelor's degree or, other. A total of 78.9% (n=30) of the students had a high school diploma or equivalent, 2.6% (n=1) had obtained a certificate at a technical school or community college, 7.9% (n=3) of the students had received a 4-year bachelor's degree, and 10.5% (n=4) of the students signified other forms of educational achievement.

Sources of Information Leading to Student Awareness of the WTP at the DABCC

Twelve possible or potential sources of information, which may have been accessed by students, leading to awareness knowledge of the WTP at the DABCC, are listed in Table 1. Respondents were instructed to choose all that applied in the questionnaire. The two sources most selected were 'friend' (34.2%, n=13), and 'brochure' (28.9%, n=11). A total of 18.4%

Table 1.
Sources of Information Obtained by Respondents About the Welding Technology Program* (*N*=38)

Sources of Information	*f*	%
Friend	13	34.2
Brochure	11	28.9
High School Counselor	7	18.4
Other Relative	6	15.8
DABCC student (either past or present)	4	10.5
Career day or other event	3	7.9
Parent	3	7.9
Newspaper	2	5.3
Co-worker	2	5.3
Letter From DABCC	1	2.6
Radio	0	0.0
Television	0	0.0
Other	11	28.9

*Respondents were asked to choose all that apply

(*n*=7) students indicated 'high school counselor' as the next predominate source followed by 15.8% (*n*=6) students choosing 'other relative'. DABCC student (either past or present), parent, career day or other event, newspaper, co-worker, and letter from DABCC were also chosen by students as sources of information. The most prevalent source of information obtained by students about the WTP at the DABCC were friends. There were 34.2% (*n*=13) students who indicated that friends were the single greatest source of information about the WTP.

Influential Factors on Student Decisions to Enroll in First Semester WTP Courses at the DABCC

Regarding objective three, fifteen possible or potential influences which may have influenced student decisions to enroll in the WTP at the DABCC were provided in the questionnaire (Table 2). Degrees of influence were categorized using an anchored Likert scale with the following categories: 1=not influential, 2=slightly influential, 3=somewhat influential, 4=moderately influential, and 5=very influential. The influence of 'Interest in learning about welding' had a total of 81.6% (*n*=31) of the responses in the *very influential* category. The mean for this influence is 4.82 with a standard deviation of .39. The related influence of 'Challenge of learning a new skill' received 50% (*n*=19) of the responses in the *very*

Table 2.
Influences on Respondents Decision to Enroll (N=38)

	Percentage						
	NI	SyI	SwI	MI	VI		
Influences	%	%	%	%	%	Mean	SD
Interest in Learning About Welding	0.0	0.0	0.0	18.4	81.6	4.82	.39
Courses Offered in the WTP	5.4	0.0	21.6	24.3	48.6	4.11	1.10
Challenge of Learning a New Skill	10.5	2.6	13.2	23.7	50.0	4.00	1.31
Better Job Opportunities	10.5	2.6	28.9	15.8	42.1	3.76	1.32
Want to Work in Welding Industry	15.8	10.5	10.5	18.4	44.7	3.66	1.53
Location	21.6	5.4	16.2	21.6	35.1	3.43	1.55
Two-Year Associates Degree	28.9	2.6	15.8	10.5	42.1	3.34	1.71
Time that WTP Courses are Offered	23.7	0.0	28.9	18.4	28.9	3.29	1.50
Hope to Start Own Business	28.9	7.9	13.2	23.7	26.3	3.11	1.61
One Year Certificate Available	32.4	5.4	21.6	8.1	32.4	3.03	1.68
WTP Reputation	28.9	5.3	18.4	28.9	18.4	3.03	1.51
Cost	31.6	2.6	21.1	23.7	21.1	3.00	1.56
WTP Instructors	32.4	2.7	35.1	8.1	21.6	2.84	1.52
Friend(s) also Enrolled in the WTP	65.8	15.8	5.3	5.3	7.9	1.74	1.27
Family Pressure	73.7	15.8	0.0	0.0	10.5	1.58	1.24
Other	0.0	0.0	2.6	0.0	2.6	4.00	1.41

Note: 1 = Not Influential (NI); 2 = Slightly Influential (SyI); 3 = Somewhat Influential (SwI); 4 = Moderately Influential (MI); 5 = Very Influential (VI)

influential category. The corresponding mean and standard deviation for this influence are 4.00 and 1.31 respectively. The 'Courses offered in the WTP' had a mean of 4.11 and standard deviation of 1.10 with 48.6% (n=18) of respondents choosing the *very influential* category.

The influence of 'Better job opportunities' yielded 42.1% (n=16) responses in the *very influential* category with a mean of 3.76 and a standard deviation of 1.32. Conversely, data for the 'Family pressure' and 'Friend(s) also enrolled in the WTP' influences showed a high percentage of responses in the *not influential* category. A total of 73.7% (n=28) of the responses for the influence of 'Family pressure' indicated that this factor was *not influential*. This category has a mean of 1.58 and a standard deviation of 1.24. A total of 65.8% (n=25) responses for the influence of 'Friend(s) also enrolled in the WTP' indicated that this factor was *not influential*. This category has a mean of 1.74 and a standard deviation of 1.27.

Concerning the single strongest influence, respondents were given ten choices of possible or potential sources of influence regarding their decision to enroll in the WTP and were instructed to choose only one source. A total of 71.1% (n=27) students indicated 'Myself' to be the strongest influence to their decision. 'Spouse' and 'parent' both received two responses, and 'employer' and 'friend' received one response each. The 'other' category also received one response and indicated that 'Ag. teacher' was the strongest influence. There were 10.5% (n=4) students who gave multiple responses and were subsequently delineated from other response categories.

Student Attitudes Toward the DABCC

Data concerning objective 4, student attitudes towards the DABCC was collected using ten possible or potential attitudes of students which could have influenced their decision to enroll in the WTP at the DABCC. It was assumed by the researcher that the individual items in this section of the questionnaire contributed to the overall domain of student attitude towards the DABCC, as such, a summated mean and corresponding standard deviation was also calculated (Table 3). Degrees of influence were categorized using an anchored Likert scale with the following categories: 1=do not agree, 2=slightly agree, 3=somewhat agree, 4=moderately agree, and 5=strongly agree. Only those attitudes identified as having notable response characteristics (items having both a majority or greater number of responses and a mean above 4.0) are discussed.

Students were asked if the DABCC does a good job in providing educational opportunities after high school. A total of 78.9% (n=30) of the students stated that they *strongly agreed* with this statement. The mean for this attitude is 4.71 with a standard deviation of .61. There were 63.2% (n=24) students who indicated that they *strongly agreed* with the statement that the DABCC is less expensive than attending the main NMSU campus. The mean and standard deviation for this item is 4.37 and .97, respectively. In responding to the statement that the DABCC is meant to fill the educational needs of the local community, 55.3% (n=21) of the students *strongly agreed*, with a 4.45 mean and .69 standard deviation. Responses towards the helpfulness of DABCC **faculty** showed 55.3% (n=21) of the students *strongly agreed* that DABCC **faculty** were helpful. The mean for this item is 4.26 and the standard deviation is .92. Responses towards the helpfulness of DABCC **staff** showed 51.4% (n=19) of the students *strongly agreed* that DABCC **staff** were helpful. The mean for this item is 4.24 and the standard deviation is .90. The statement that students are **not** important to the success of the DABCC was recoded into a positive statement for reporting purposes. A total of 83.8% (n=31) students *strongly agreed* that students are important to the success of the DABCC. A mean of 4.62 and standard deviation of 1.01 was calculated for this item. The statement that the DABCC is **not** open to anyone who wants to attend was also recoded to make this a positive statement. There were 63.2% (n=24) of the students *strongly agreed* that the DABCC is open to anyone who desires to attend. The mean is 4.13 and the standard deviation is 1.30 for this item. Overall, the summated mean for the ten

Table 3.
Summated Mean and Standard Deviation of Student Attitudes Toward the DABCC (N=38)

Factor	Mean	SD
Student Attitude Toward the DABCC as an Institution	4.19	.54

attitudinal items which contribute to the domain of student attitudes toward the DABCC is 4.19 with a standard deviation of .54.

Conclusions

The respondents were mostly male (only 2 students were female). This could be attributed to certain stigmas typically associated with activities and employment opportunities related to the career of welding. Less than a quarter of the respondents considered themselves as belonging to a cultural or ethnic minority, and three quarters were single. Average student age was 26 years. This can be compared to the findings of the American Association of Community Colleges (1995), which reports the average age of a community college student to be 29. The range of 43 years between the oldest and youngest student demonstrates that the DABCC appears to provide desirable educational opportunities to a wide range of clients. The youngest student of 17 years of age was still attending high school through the AVS program of concurrent high school and community college enrollment. Two other respondents were also participating in the AVS program. This demonstrates that the WTP is providing opportunities to AVS program participants and, may also be an important factor in relation to those who are assisting in facilitating the transition of high school students into the DABCC. The oldest student of 60 years of age shows that the WTP at the DABCC serves a wide range of age groups within the community and it could also be assumed that, for this respondent, age was not perceived as a barrier to enrollment. All students had completed high school, or received a high school diploma equivalency. This is understandable since this is a requirement for enrollment at the DABCC, except for AVS participants. Seventy five percent of the group indicated that a high school diploma, or equivalency, was their highest level of educational achievement. Three students had received a 4-year degree with one student having obtained a master's degree. This demonstrates that the WTP is perceived by these students to offer educational opportunities which are still relevant or desired even though they have already been awarded a post-secondary degree.

Friends were the largest single source of information leading to awareness knowledge of the WTP at the DABCC. Brochure was the next most selected source. Based on these findings, recruitment efforts should emphasize accessing social networks at the level in which they are most prevalent, probably at the secondary level, using appealing information presentation such as might be found in a brochure format.

Interest in learning about welding was a *very influential* factor affecting student decisions to enroll in the WTP. Challenge of learning a new skill, courses offered in the WTP, and better job opportunities, were also *somewhat to moderately influential*. Three quarters of the students felt that family pressure and, friends also being enrolled in the WTP, were *not influential* factors. So although friends were indicated to be the greatest source of information, having a friend enrolled in the WTP was not an influential factor. Approximately three quarters of the students chose the item of 'myself' as the strongest influence in their decision to enroll in the WTP. It could be reasoned that this item should be discounted. A logical argument could be made that most individuals will naturally respond to such a question in the same manner based on the rationale that people will naturally consider themselves as the most important decision maker in their life. However, the same reasoning could be used to validate the item. If individuals, for whatever reason, view themselves as the strongest influence in their decision making process, then accessing these individuals with the proper information and influencing their attitudes becomes an important endeavor related to their choice to enroll in the WTP at the DABCC.

The respondents' attitudes towards the DABCC were generally very positive. Eighty percent of the respondents *strongly agreed* that students are important to the success of the DABCC. Slightly less than two-thirds of the students *strongly agreed* to the statement that the DABCC is open to anyone who wants to attend. Additionally, respondents *strongly agreed* that the DABCC does a good job in providing educational opportunities after high school and, the DABCC is less expensive than attending the main campus at NMSU. Over half the students strongly agreed that the DABCC is meant to fulfill the educational needs of the local community, and the DABCC faculty and staff are helpful. The summated mean for the ten attitudinal items listed in the questionnaire regarding student attitudes towards the DABCC was just over 4.0 with a standard deviation of .54. This indicates that the students generally expressed a positive attitude towards the DABCC as an institution with minimal deviation. The related literature revealed that student attitudes towards the post-secondary institution may influence their decision to enroll in vocational-technical endeavors. The data collected addressing student attitudes towards the DABCC indicates that the image of the DABCC may be an encouraging factor, rather than a discouraging one, concerning the influence this factor may have on student decisions.

Recommendations

Those entities involved with the marketing and recruitment efforts at the DABCC may use the information developed in this study to assist them in their program efforts. If gender and ethnic or cultural diversity are important factors for enrollment at the DABCC or in the WTP, additional attention should be devoted to providing the appropriate information to these populations to perhaps increase their representation in the WTP. Since the students were fairly evenly represented according to their employment status, a conclusion can be drawn that continuing education is important, and possible, at the DABCC even for those

individuals who are working either part or full time. This finding also reveals that the DABCC serves diverse needs, at least in regards to employment status. As such, efforts to recruit students through their employers or place of employment should be considered. Based on the findings, age of potential students should not be considered a barrier to enrollment. Information dissemination and recruitment efforts should continue to focus on both the traditional and non-traditional student. Given that 75% of the students indicated that a high school diploma or equivalency to be their highest level of educational achievement, information about the DABCC and the WTP should be disseminated during the decision making process prior to, or shortly after, receiving a high school diploma or its equivalency. Since 'friends' were identified to the greatest extent as the largest single source of information concerning the WTP at the DABCC, recruitment efforts should emphasize accessing these social networks at the level in which they are most prevalent, probably at the secondary level. Outreach efforts to recruit students into the WTP should provide information which emphasizes the interesting and rewarding aspects of the welding vocation in an effort to appeal to the learning interests or activity preferences of potential students. Influencing the potential student, rather than another source of influence, should be the focus of the DABCC or WTP marketing effort. Information which presents the image of the DABCC should be emphasized in relation to its influence on student decisions. Current information developed for marketing and recruitment efforts should be reviewed and revised to reflect the findings of this study, as well as to determine if alternative informational delivery systems are necessary and appropriate.

The findings and conclusions also indicate further research efforts are possible which relate to the purpose and objectives of this study. The following recommendations should be considered for further investigation. Does the WTP compete effectively with other technical study programs at the DABCC for potential students? Will identifying students' learning interests and activity preferences at the secondary level assist in locating avenues for providing information and influence to the decision making process of these individuals? Can the current outreach and recruitment efforts of the entities at the DABCC or the WTP be correlated to student decisions to enroll in the WTP at the DABCC? What is the relationship of student attitudes towards the DABCC as an institution to student decisions to enroll in vocational-technical post-secondary education at the DABCC?

References

American Association of Community Colleges. (1995). Pocket profile of community colleges: trends and statistics, 1995-1996. Washington, D.C.: Association of Community College Trustees. (ERIC Document Reproduction Service No. ED 379 036)

American Association of Community and Junior Colleges. (1988). Building communities: A vision for a new century. Washington, D.C.: National Center for Higher Education.

Ary, D., Jacobs, L.C., & Razavieh, A. (1990). Introduction to research in education (4th edition). Orlando: Harcourt Brace College Publishers.

Boyer, E.L. (1987). College: The undergraduate experience in America. New York: Harper and Row.

Bureau of Labor Statistics. (July 1983). Workers without jobs: A chartbook on unemployment. U.S. Department of Labor, Bureau of Labor Statistics (Bulletin No. 2174). Washington, D.C.: U.S. Government Printing Office.

Clyde, M., Townes, D., & Hill, R. (1984). An analysis of the career aspirations of disadvantaged students enrolled in vocational education programs: Final report from July 1, 1982 to August 31, 1984. Tallahassee, FL: Florida State University. (ERIC Document Reproduction Service No. ED 255 645)

Ghazalah, I. A. (1987). Long term follow-up of vocational education graduates: A study based on federal income tax data. Athens, Ohio: Ohio University, College of Arts and Sciences, Department of Economics.

Grimes, J.W., & Scalise, J.J. (1986). An analysis of variables affecting high school students' vocational choices. Lafayette, LA: University of Southwestern Louisiana.

Henderson, J. T. (1970). Program planning with surveys in occupational education. Washington, D.C.: American Association of Junior Colleges.

Michaud, G.L. (1991). Marketing the satellite student in a technical college. (Masters thesis, University of Southern Maine, 1991). (ERIC Document Reproduction Service No. ED 337 221)

Meier, R.L. (1991). Participation in secondary vocational education and its relationship to college enrollment and major. Journal of Industrial Teacher Education, 28(2), 47-60.

Nunnally, J.C. (1967). Psychometric theory. New York: McGraw-Hill.

Obi, S.C. (1993). Factors influencing minority enrollment in postsecondary vocational technical education programs in the state of Iowa. Journal of Technology Studies, 19(1), 56-64.

Rossetti, R. (1989). Reasons high school students are not enrolling in vocational education and people influencing students' decisions. Columbus, OH: The Ohio State University. (ERIC Document Reproduction Service No. ED 305 445)

Rossetti, R. (1991). Factors that influence students not to enroll at the Vanguard joint vocational school. Columbus, OH: The Ohio State University. (ERIC Document Reproduction Service No. ED 334 357)

Rossetti, R. (1991). Factors that influence students not to enroll at the Lawrence County joint vocational school. Columbus, OH: The Ohio State University. (ERIC Document Reproduction Service No. ED 334 357)

Public Law 103-239 (108 Stat. 568), H.R. 2884, 103d Cong., 2nd Sess., School-to-Work Opportunities Act of 1994. (1994).

Schrof, J.M. (1993, October 4). Community colleges. U.S. News and World Report, 126-127.